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(54) Title: RAY SCANNING DEVICE

(54) 发明名称: 射线扫描设备

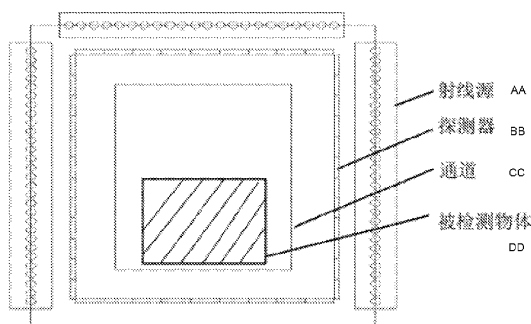


图 18

AA Ray source
BB Detector
CC Channel
DD Object to be detected

(57) Abstract: A ray scanning device, comprising: a conveying apparatus (1), conveying an object to be detected (6) to pass through a scanning region of the ray scanning device; a ray source (3), comprising multiple ray source modules (31, 32, 33, 34), each ray source module (31, 32, 33, 34) comprising at least one ray source point emitting a ray beam, and the multiple ray source modules (31, 32, 33, 34) being arranged around the scanning region above the conveying device (1) and secured in a plane perpendicular to a conveying direction of the object to be detected (6); and a detector (4), used to detect rays transmitted through the object to be detected (6) during a scanning period, and comprising multiple detector sets (41, 42, 43, 44), end portions of the multiple detector sets (41, 42, 43, 44) being connected to each other so as to surround the scanning region, and the multiple detector sets (41, 42, 43, 44) being secured in a plane perpendicular to the conveying direction of the object to be detected (6), the detector (4) being located between the ray source (3) and the scanning region along a direction perpendicular to the conveying direction of the object to be detected (6), the ray source (3) and the detectors (4) being arranged to at least partially overlap along the conveying direction of the object to be detected (6), and the multiple ray source modules (31, 32, 33, 34) being detached and mounted independently of each other.

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本国际公布:

— 包括国际检索报告 (条约第21条(3))。

(57) 摘要: 一种射线扫描设备, 包括: 传送装置(1), 运送被检测物体(6)通过射线扫描设备的扫描区域; 射线源(3), 包括多个射线源模块(31,32,33,34), 每个射线源模块(31,32,33,34)包括发射射线束的至少一个射线源点, 多个射线源模块(31,32,33,34)在传送装置(1)上方围绕扫描区域布置并固定在垂直于被检测物体(6)的输送方向的平面内; 探测器(4), 用于检测在扫描期间传输通过被检测物体(6)的射线并包括多个探测器组(41,42,43,44), 多个探测器组(41,42,43,44)的端部相互连接以围绕扫描区域布置, 且多个探测器组(41,42,43,44)固定在垂直于被检测物体(6)的输送方向的平面内, 探测器(4)沿被检测物体(6)的输送方向的垂直方向位于射线源(3)和扫描区域之间, 射线源(3)和探测器(4)布置成沿被检测物体(6)的输送方向至少部分重叠, 多个射线源模块(31,32,33,34)相互独立地拆卸和安装。